

REMARKS

In the Office Action, Claims 16 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,069,402 to Murohara ("Murohara") and U.S. Patent No. 5,200,601 to Jarvis ("Jarvis"). The Patent Office primarily relies on Murohara and further relies on Jarvis to remedy the deficiencies of same. Applicants respectfully disagree with and traverse the rejections for at least the reasons set forth below.

Independent claim 16 recites a method for manufacturing a semiconductor integrated circuit device. The method includes forming a plurality of circuit patterns on a substrate, bonding a plurality of semiconductor integrated circuit chips onto a first surface of the substrate having the circuit patterns formed thereon, and connecting electrodes of the semiconductor integrated circuit chips to each of the circuit patterns, applying a first seal resin onto each of the semiconductor integrated circuit chips, disposing a first reinforcement metal plate above the first seal resin, applying a second seal resin onto a second reinforcement metal plate, disposing the second reinforcement metal plate on a second surface of the substrate with the second seal resin therebetween, pressurizing the first and second seal resins via the first and second reinforcement metal plates so as to let flow the first seal resin along a peripheral faces of each of the semiconductor integrated circuit chips, hardening the seal resins flown along the peripheral faces of the semiconductor integrated circuit chips, and thereafter dividing the substrate into a semiconductor integrated circuit device at every semiconductor integrated circuit chip.

Independent claim 17 recites a method for manufacturing a semiconductor integrated card. The method includes the steps of forming an integrated circuit device as recited in claim 17 and further includes the steps of disposing an individually divided semiconductor integrated circuit chip on a roll film and coating the same, heating a thin film on which the semiconductor integrated circuit chip is coated with the thin film, manufacturing a card connected plate in which a plurality of semiconductor integrated circuit chips are connected in line, and dividing the card connected plate into an individual semiconductor integrated circuit card.

The method of manufacturing a semiconductor integrated device or semiconductor integrated card of the present invention is capable of providing a semiconductor integrated circuit chip device having extremely high strength and less dispersion of seal shape and seal thickness. In contrast, the primary Murohara reference is primarily directed to covering a first cured resin with a second resin to effectively fill in and smooth out the bumpy surface of the first

cured resin, the bumpy surface caused by shrinkage of the resin during curing. An object of Murohara is to provide a flat surface such that good photographic printing can be obtained on the surface of the card. See, Murohara, col. 1, lines 62-64.

As admitted in the Office Action, Murohara lacks a first reinforcement plate of metal material and a second reinforcement plate of metal material. See, Office Action, page 3. In addition, the claimed invention is distinguishable over Murohara in a number of ways. First, the claimed invention includes applying a second seal resin onto a second reinforcement plate. In contrast, Murohara discloses applying a second molten UV curing resin onto the first UV cured resin. See, Murohara, col. 3, lines 53-55; Fig. 11. The purpose of the second UV resin in Murohara is to completely cover and fill in the bumpy surface caused by the previous curing of the first UV resin, as discussed above. Therefore, Murohara does not disclose applying a second seal resin onto a second reinforcement plate as required by the claimed invention.

Second, the claimed invention includes disposing a first metal reinforcement plate above the *first* seal resin. In contrast, Murohara discloses placing a top covering material 16 formed of white polyethylene terephthalate (PET) on the *second* resin. See, Murohara, col. 3, lines 55-58. Even if the PET material 16 can be considered a reinforcing plate, which Applicants do not admit, it cannot be applied to the first UV resin as the first UV resin is completely covered with the second UV resin. See, Murohara, Fig. 1. Therefore, Murohara does not teach disposing a first reinforcement plate above the first seal resin, as required by the claimed invention.

Third, the claimed invention includes disposing the second reinforcement plate on a second surface of the substrate with the second seal resin therebetween. In contrast, the second “reinforcement” plate 17 in Murohara is directly applied to the second surface of the substrate 3 without any second UV resin therebetween. This is shown clearly in Figs. 10 and 11, where second surface of the substrate 3 is contacted with the second covering material 17 and the second UV resin 5a has not yet been applied. See, Murohara, Figs. 10 and 11. Therefore, Murohara is deficient with respect to the claimed invention for at least the reasons discussed above.

Furthermore, Applicants respectfully submit that the Jarvis reference does not remedy the deficiencies of Murohara. Jarvis is cited primarily for disclosing a reinforcing region for a flexible identification card, the reinforcing region including a pair of metal foils spaced apart a distance with a hard glob top resin therebetween. See, Jarvis, col. 2, lines 30-38. Therefore,


Jarvis does not include disposing a first reinforcement metal plate above the first seal resin, applying a second seal resin onto a second reinforcement metal plate, or disposing the second reinforcement metal plate on a second surface of the substrate with the second seal resin therebetween, as required by the claimed invention.

Accordingly, Applicants respectfully request that this obviousness rejection with respect to claims 16 and 17 be withdrawn.

For the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

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